In the Claims:

The pending claims are presented below.

1.   (currently amended) A system for directing data on an internet protocol (IP) network having a plurality of communication links, the system comprising:

an origin node coupled to the network and adapted to supply data to the network;

a plurality of ~~system~~ user nodes, each node coupled to the network and ~~adapted to store~~ configured and arranged to adaptably deliver at least a portion of the data supplied by the origin node;

a plurality of servers adapted to route data between at least one of the ~~system~~ user nodes and the network; and

a network-distributed application routing controller implemented in ~~various levels~~ ~~throughout the network~~ at least one user node and in at least one of the plurality of servers, and adapted to ascertain location information of the data supplied by the origin node, to receive a data request from one of the plurality of ~~system~~ user nodes and to direct routing of the supplied data from a node on the network to the user node to which the data has been requested to be delivered ~~via one of the plurality of communication links and using at least one of the servers,~~ ~~the routing being directed in response to the ascertained data location information~~.

2.   (currently amended) The system of claim 1, wherein at least one of the plurality of ~~system~~ user nodes is further adapted to provide data location information to the network, the data location information including ~~the~~ a type of data stored at the ~~system~~ user node.

3.   (currently amended) The system of claim 2, wherein the application routing controller is adapted to receive the data location information from the ~~system~~ user node and to direct the routing in response to the received data location information.

4.   (currently amended) The system of claim 1, wherein one of the servers and at least two of the ~~system~~ user nodes make up a local network, wherein the routing controller is adapted to effect data routing between two ~~system~~ user nodes coupled to the server via the local network.

5. (currently amended) The system of claim 4, wherein the ~~local network~~ server for the local network includes an edge server.

6. (currently amended) The system of claim 4, wherein the ~~local network~~ server for the local network includes a replication device adapted to replicate data and wherein the server is adapted to send the replicated data to one of the ~~system~~ user nodes.

7. (currently amended) The system of claim 6, wherein the ~~local network~~ server for the local network replicates data in response to a command from the controller.

8. (currently amended) The system of claim 1, further comprising a replication device adapted to replicate data and to send the replicated data to a ~~system~~ user node via the network.

9. (original) The system of claim 1, further comprising a network data traffic monitor adapted to detect a characteristic of one or more of the communication links for use in routing the data.

10. (original) The system of claim 9, wherein the application routing controller includes the traffic monitor.

11. (original) The system of claim 9, wherein the traffic monitor is adapted to detect a characteristic that includes the rate at which a particular communications link can transfer data.

12. (original) The system of claim 9, wherein the traffic monitor is adapted to detect a characteristic representing the capacity of a communication link to transfer additional data.

13. (currently amended) The system of claim 12, wherein the application routing controller is adapted to use the ~~information~~ characteristic detected by the traffic monitor to direct data routing via a communication link identified as having sufficient availability to transfer the data.

14.   (original) The system of claim 12, wherein the application routing controller is adapted to delay a data transfer in response to the communication link being unable to handle additional data transfer.

15.   (original) The system of claim 12, wherein the application routing controller is adapted to use the detected characteristic to predict the amount of data that will be transferred over the communication link during a particular time period.

16.   (original) The system of claim 15, wherein the application routing controller is adapted to direct the data transfer during a time period that is predicted to have a lower amount of data being transferred in relation to another time period.

17.   (currently amended) The system of claim 1, wherein the application routing controller is adapted to detect a characteristic that includes the cost of routing data over a particular communication link and to direct the data using ~~the~~ a least-cost route.

18.   (currently amended) The system of claim 17, wherein the application routing controller is adapted to detect a characteristic that includes a delivery-related characteristic of routed data over a particular communications link, and to direct the data using ~~the~~ a ~~least-cost~~ least-cost route meeting a selected delivery-related characteristic criteria.

19.   (original) The system of claim 18, wherein the delivery-related characteristic includes at least one of: data transmission accuracy; data transmission speed; data transmission security and data transmission time.

20.   (currently amended) The system of claim 1, wherein one of the ~~system~~ user nodes is adapted to simultaneously transfer data from a data set while the data set is being received, in response to a command from the application routing controller.

21. (currently amended) The system of claim 20, wherein the ~~system node~~ <u>one of the user nodes</u> is adapted to delay subsequent transfer of received data until a selected amount of data has been received.

22. (currently amended) The system of claim 21, wherein the ~~system node~~ <u>one of the user nodes</u> is adapted to effect the delay in response to ~~the~~ rates at which it is receiving and sending the data, wherein the delay is sufficient to reduce the possibility of running out of data for ~~the~~ <u>a</u> subsequent transfer due to the rate at which the data is being received.

23. (original) The system of claim 1, further comprising a subscription content manager programmed to manage system subscriptions to a provider's content, the subscription management including providing authorization for a particular user to receive selected content data.

24. (original) The system of claim 23, wherein the application routing controller is adapted to direct routing in response to the provided authorization.

25. (original) The system of claim 1, wherein the application routing controller is programmed to track and report data transfer information.

26. (currently amended) The system of claim 1, wherein one of the ~~system~~ <u>user</u> nodes is programmed to track and report data transfer.

27. (currently amended) The system of claim 1, wherein the application routing controller is adapted to direct data transfer of streaming media content for immediate use at one of the ~~system~~ <u>user</u> nodes.

28. (currently amended) The system of claim 1, wherein at least one of the ~~system~~ <u>user</u> nodes is adapted to make the received data available for use in response to a transmission report being sent from the ~~system~~ <u>user</u> node to the application routing controller.

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29.   (currently amended) The system of claim 28, wherein the application routing controller is adapted to send a security code to the ~~system~~ user node in response to the transmission report being received, wherein the ~~system~~ user node is adapted to use the security code to make the received data useable at the user node.

30.   (currently amended) The system of claim 28, wherein the ~~system~~ user node is adapted to decrypt the received data to make it available for use.

31.   (original) The system of claim 1, wherein the application routing controller is adapted to communicate over the network using object oriented programming (OOP) communication.

32.   (original) The system of claim 1, wherein the application routing controller is adapted to share data transfer information with other application routing controllers, and to use data location information ascertained by other application routing controllers.

33.   (currently amended) A system for directing data on an internet protocol (IP) network having a plurality of communication links, the system comprising:

data supply means for supplying data to the network;

a plurality of ~~system~~ user nodes coupled to the network and ~~adapted to store~~ configured and arranged to adaptably deliver at least a portion of the data supplied by the ~~origin node~~ data supply means;

routing means for routing data between at least one of the ~~system~~ user nodes and the network; and

a network-distributed application routing control means implemented ~~at various levels of the network~~ in at least one user node and in the routing means, and adapted to ascertain location information of the data supplied by the data supply means, to receive a data request from one of the plurality of ~~system~~ user nodes and to direct routing of the supplied data from a node on the network to the user node to which the data has been requested to be delivered via the routing means, the routing being directed in response to the ascertained data location information.

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34.   (currently amended) A method for directing data on an internet protocol (IP) network having a plurality of communication links and a plurality of ~~system~~ user nodes, the method comprising:

   supplying data to the network via an origin node;

   storing at least a portion of the data supplied by the origin node at a ~~system~~ user node;

   receiving a data request from one of the plurality of ~~system~~ user nodes

   ascertaining location information of the data being requested;

   directing routing of the requested data from a node on the network to the user node to which the data has been requested to be delivered in response to the ascertained data location information; and

   using various coordinated layers of the network, routing the data between at least one of the ~~system~~ user nodes and the network.

35.   (currently amended) The method of claim 34, wherein ascertaining location information includes ascertaining information from the plurality of ~~system~~ user nodes that describes data stored at the ~~system~~ user node.

36.   (currently amended) The method of claim 35, further comprising programming the ~~system~~ user nodes to provide the data location information that is used in directing the routing.

37.   (currently amended) The method of claim 35, further comprising sending a request to each ~~system~~ user node, wherein ~~the system~~ each user node responds to the request by sending data location information that is used in directing the routing.

38.   (original) The method of claim 34, wherein routing the data includes routing a live event using streaming data.

39.   (original) The method of claim 34, further comprising selecting a pay-per-view media event via the network, wherein routing the data includes routing the media event.

40.   (original) The method of claim 34, further comprising detecting the amount of data traffic on the network, wherein directing routing includes using the detected amount of data traffic to direct the routing during a low traffic period.

41.   (original) The method of claim 40, wherein directing the routing includes scheduling the routing to occur when the detected amount of data traffic reaches a target traffic level.

42.   (original) The method of claim 34, wherein directing routing includes scheduling a routing time for the data, further comprising re-evaluating the routing schedule before the scheduled routing time.

43.   (original) The method of claim 34, further comprising detecting the amount of data traffic on the network, wherein directing routing includes using the detected amount of data traffic to select a communication link over which to send the data.

44.   (original) The method of claim 34, wherein directing routing of the requested data includes directing routing of data from more than one node.

45.   (original) The method of claim 34, wherein ascertaining location information includes re-ascertaining data location information while the data is being routed, and wherein directing routing of the requested data includes directing the routing in response to the re-ascertained location information data.

46.   (original) The method of claim 34, further comprising identifying a plurality of routing solutions and a cost associated with each routing solution, wherein directing routing includes using one of the plurality of routing solutions that is less expensive than another one of the routing solutions.

47.   (original) The method of claim 46, wherein identifying a plurality of routing solutions and a cost associated with each routing solution includes identifying at least one of: the distance

that data must travel over a selected data routing path, the cost of sending data over a selected data routing path and the cost of sending the data at a selected time of day.

48.   (original) The method of claim 34, wherein the data request includes a routing priority, wherein directing routing includes routing the data according to the priority.

49.   (currently amended) The method of claim 34, wherein directing routing includes using subscription content information to determine whether the ~~system~~ user node making the data request is authorized to receive the data, wherein routing the data includes routing the data in response to the ~~system~~ user node being authorized to receive the data.

50.   (original) The method of claim 34, wherein directing routing includes directing the origin node to deliver a data file to the network.

51.   (new) The system of claim 1, wherein the network-distributed application routing controller is configured and arranged to direct routing of the supplied data from a node on the network to the user node to which the data has been requested to be delivered via one of the plurality of communication links and using at least one of the servers, the routing being directed in response to the ascertained data location information and the location of the user node to which the data has been requested to be delivered.